

(12) UK Patent Application (19) GB (11) 2 307 225 (13) A

(43) Date of A Publication 21.05.1997

(21) Application No 9523459.7

(22) Date of Filing 16.11.1995

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(51) INT CL⁶
B65D 1/26

(52) UK CL (Edition O)
B8P PE2B PV
U1S S1081

(56) Documents Cited
GB 2255767 A

(58) Field of Search
UK CL (Edition O) B8P PE2B PK5 PV
INT CL⁶ B65D 1/22 1/26 1/28 1/34 1/36 1/40 1/42 1/44
25/10
ONLINE:WPI

(54) Container for packaging a fowl

(57) A container (1) for packaging at least part of a carcass of a fowl comprises a base tray (2) and a domed lid (3) formed from a stiff plastics sheet material by drawing with heat and vacuum. At the front end is a hinge configuration (8, 9) and at the tail end a latch (10). The domed lid (3) has a domed portion (12) surrounded by an outwardly directed flange (13) which is surrounded by a downwardly directed flange (14) and an outwardly directed flange (15). Channels (13a) for inflow and outflow of gases are provided at three positions at either side of the container. In the domed portion (12) of the domed lid (3) are discrete inward projections (17) which may be circular and thus have the form of dimples. The inward projections (17) can engage the upper face of a carcass of a fowl and prevent the domed portion of the lid 3 dishing inwardly.

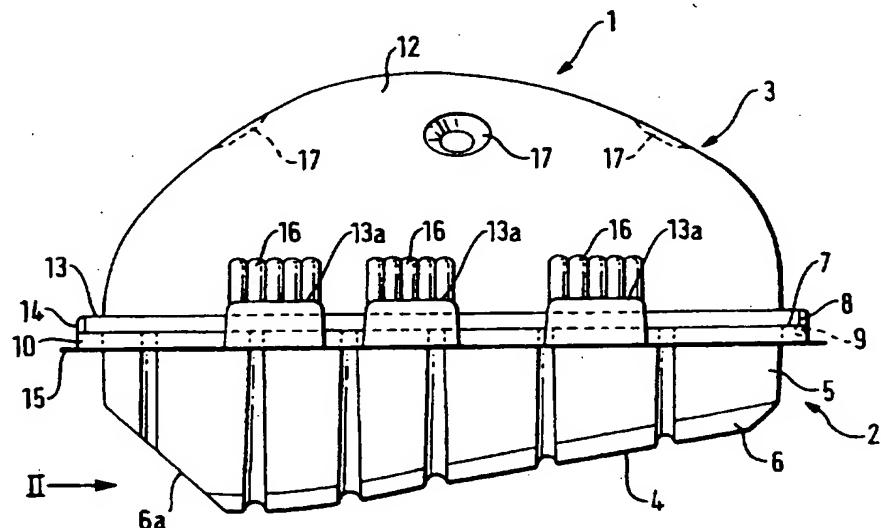


FIG.1

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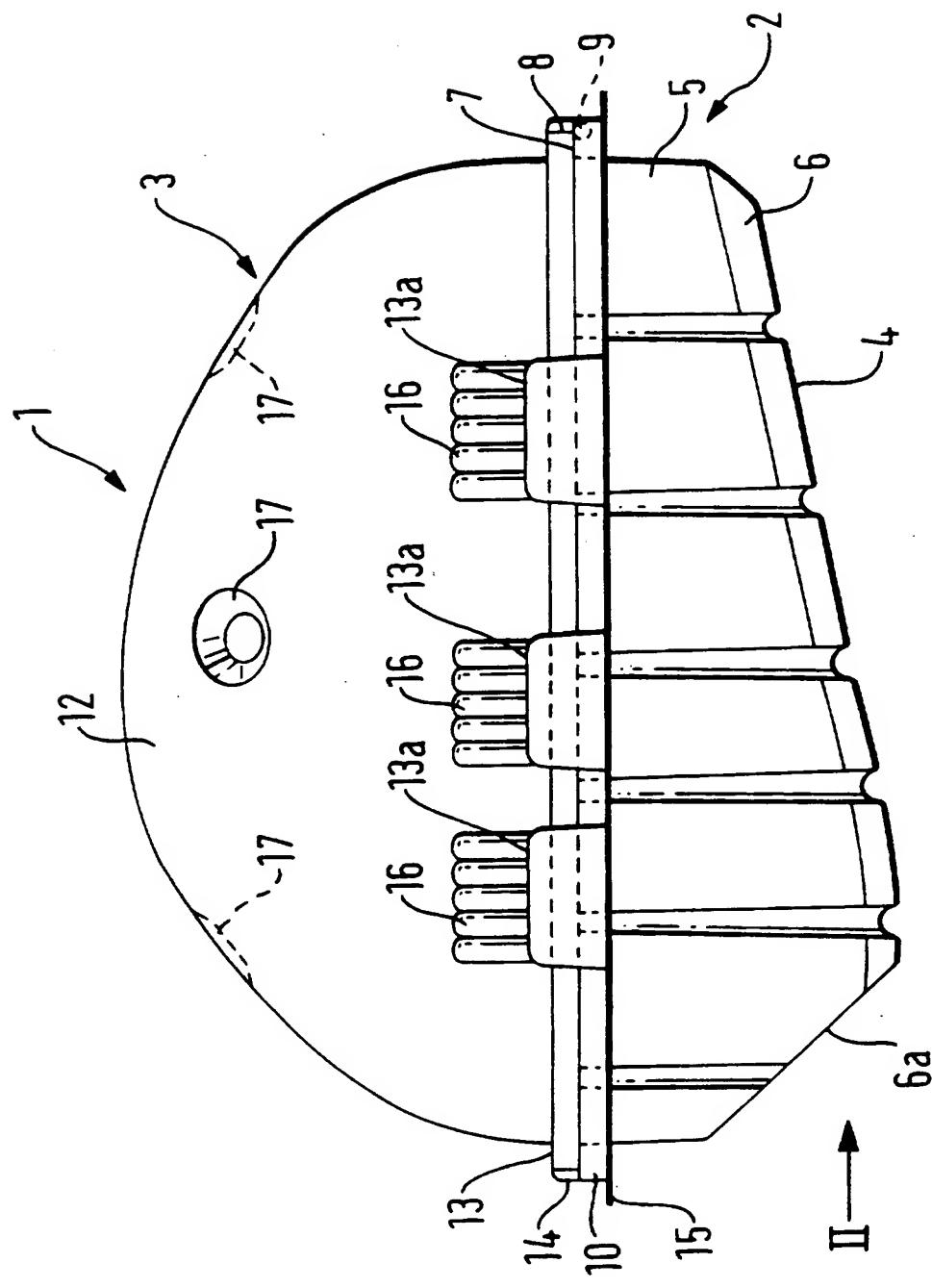


FIG. 1

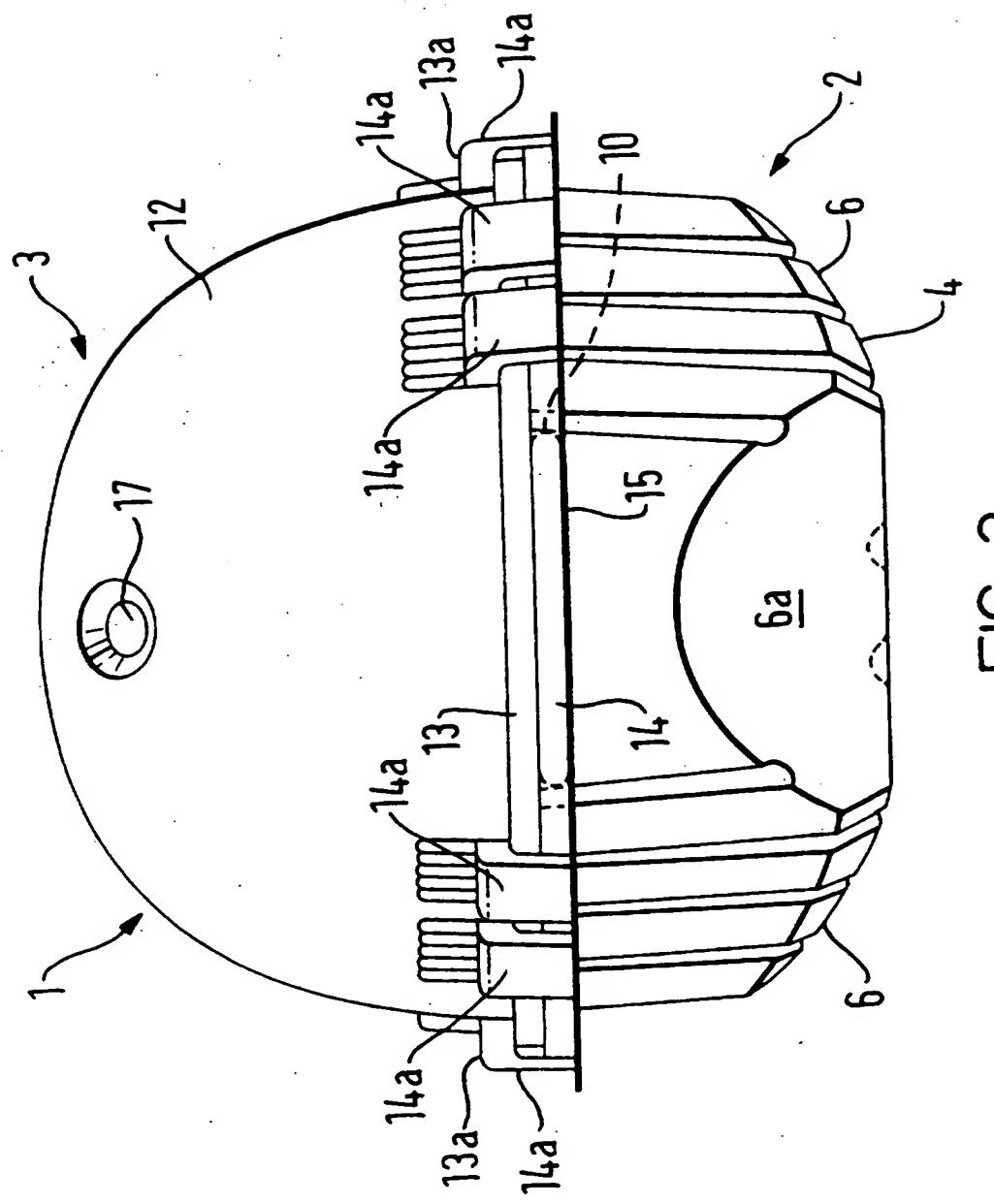


FIG. 2

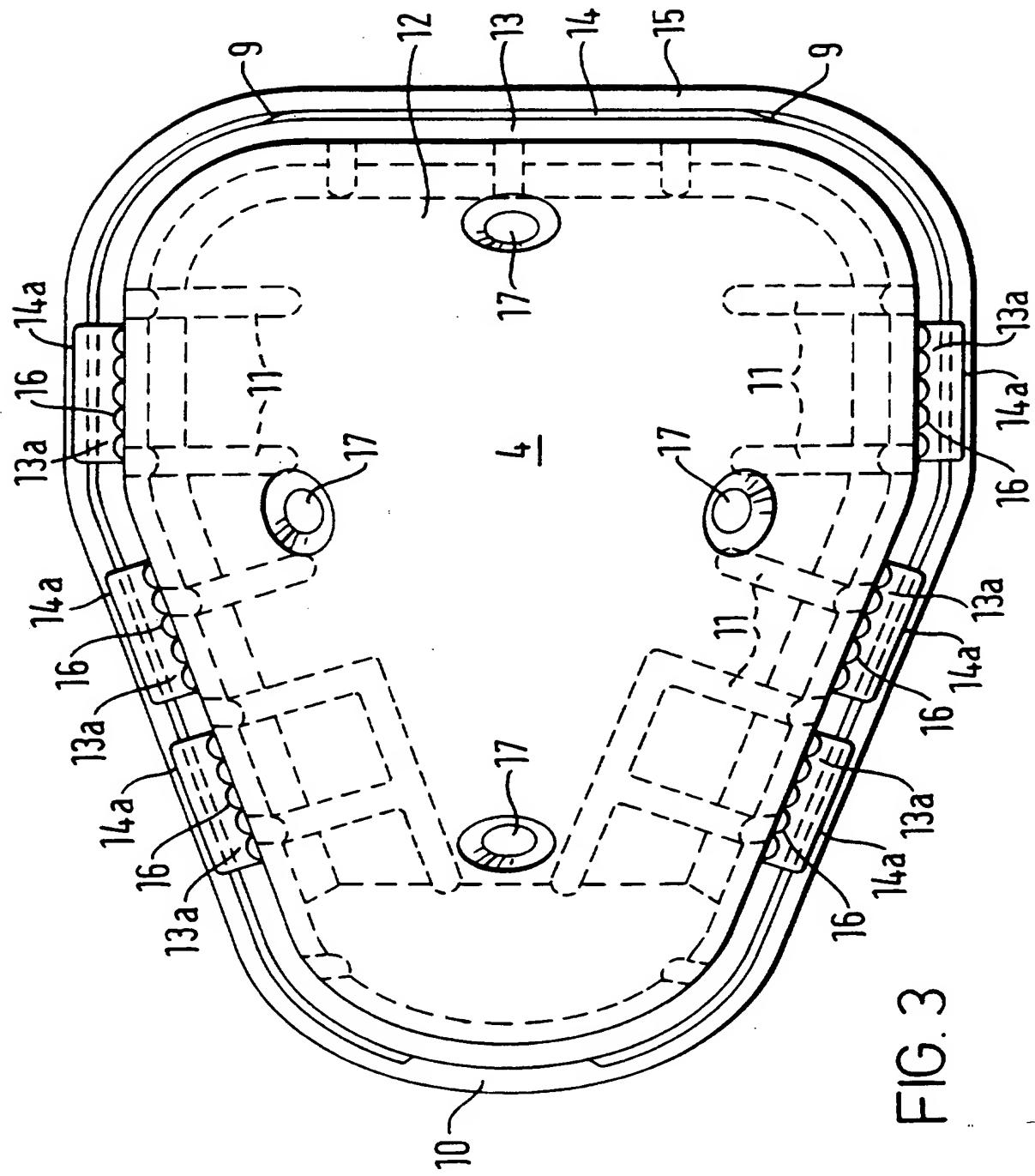


FIG. 3

CONTAINER FOR PACKAGING A FOWL

The invention relates to a container for packaging a fowl.

One form of packaging fowl that has recently become popular is turkey 5 crowns, that is to say a main body portion of a turkey with wings and legs removed.

According to the invention a container for packaging at least a main body portion of a carcass of a fowl comprises a base tray and a domed lid which can be hingedly connected together and are provided with cooperating latching means to retain them in engagement when closed together, the base tray and the domed lid each 10 being formed of drawn and/or blown plastics sheet material, wherein, at a plurality of locations distributed over the domed lid, the domed lid is depressed to form discrete inward projections which in use can, by abutting a carcass of a fowl contained in the container, restrict contact between the domed lid and the carcass to said projections only, can prevent the domed lid being depressed inwardly to an extent such that it 15 cannot itself recover its domed configuration and can ensure that passages for the flow of gas are maintained between the upper face of the carcass and the underside of the domed lid.

The discrete inward projections are advantageously in the form of dimples or ribs.

20 Preferably the domed lid is formed of a transparent material.

The base tray and the domed lid can be formed from materials selected from polypropylene polystyrene PVC, PVC/PE, PVC/EVOH/PE and foamed P/P.

The container of the invention has particular though not exclusive application 25 to packaging of turkey crowns in a process which incorporates gas flushing. In this process, a soak-pad is first provided in the base tray, the turkey crown to be packaged is placed thereon, the domed lid is applied and latched to the base tray and the entire container is inserted into a plastics bag. The formation of the lid and/or of the base tray is such that there are flow channels provided at a joint therebetween, through which flow channels gases can freely flow from within the container to 30 outside the container and vice versa. The bag in which the container is contained is evacuated of most of the air therein, the flow channels between the base tray and the

domed lid allowing most of the air from within the container to be evacuated also. The bag and with it the container are then re-inflated with an inert gas, for example CO₂ or a cocktail of gases preferably including CO₂, the flow channels then allowing the gas to flood back into the container and the passages provided between the carcass 5 and the underside of the domed lid due to the discrete inward projections ensuring free flow of gas over and around the carcass. It has been shown that the shelf-life of a carcass of a fowl subjected to gas flushing is considerably extended. The discrete inward projections also allow the container to be evacuated without undue risk of the domed lid dishing inwardly to an extent such that it is permanently deformed and 10 cannot recover its domed configuration even when the gas content of the container is returned to atmospheric pressure.

The invention is diagrammatically illustrated by way of example in the accompanying drawings, in which:

15 Figure 1 is a side elevation of a container for packaging a main body portion of a carcass of a fowl according to the invention;

Figure 2 is a view taken in the direction of arrow II of Figure 1; and

Figure 3 is a plan view corresponding to Figures 1 and 2.

Referring to the drawings, a container 1 comprises a base tray 2 and a domed lid 3. The base tray 2 and the domed lid 3 can be formed from a stiff plastics sheet 20 material by drawing with heat and vacuum. Preferably the base tray 2 is formed of an opaque coloured plastics and the domed lid 3 is formed of a transparent plastics.

The base tray 2 has a bottom wall 4 which can be seen through the transparent domed lid 3 in Figure 3, an upstanding surrounding side wall 5, an angled wall 6 joining the bottom wall 4 to the side wall 5, which angled wall 6 at a tail end has a larger portion 6a, a flange 7 projecting horizontally outwardly from the upper end of 25 the wall 5 and a further downwardly projecting flange 8 from the outer edge of the flange 7. At the front end a hinge configuration 9 on the domed lid 3 engages beneath the lower edge of the flange 8 and at the tail end an inward depression on the lid engages beneath the lower edge of the flange 8 to form a latch 10. The hinge 9 and the latch 10 do not themselves form a part of this invention.

Ribs 11 in the base tray 2 extend over the outer portions of the base wall 4 and

up the side walls 5.

As can be seen in the Figures, the domed lid 3 has a domed portion 12 surrounded by a outwardly directed flange 13 which is surrounded by a downwardly directed flange 14 and an outwardly directed flange 15. In the closed together condition of the base tray 2 and the domed lid 3, the flange 13 of the lid rests upon the flange 7 of the base tray and the flange 14 of the domed lid lies closely against the outer face of the base tray 2. To provide channels for inflow and outflow of gases, vents are provided at three positions at either side of the container. These comprise portions 13a where the flange 13 is raised above the remainder of the flange 13 and portions 14a where the flange 14 is moved outwardly compared with the remainder of the flange 14. Reinforcing ribs 16 are provided above the raised flange portions 13a.

It will be seen that due to provision of the portions 13a and 14a flow channels are provided at a plurality of positions at each side of the container such that gases can be caused to flow into, laterally across and out of the container. Provided in the domed portion 12 of the domed lid 3 are a plurality, as shown four, of discrete inward projections 17 which in the embodiment shown are circular and thus have the form of dimples. The inward projections 17 can engage the upper face of a carcass of a fowl (not shown) contained within the container 1 and prevent the domed portion of the lid 3 dishing inwardly due to reduced pressure therein to an extent which would prevent the domed lid from recovering its original configuration after a vacuum drawn in the container had been removed. The inward projections 17 also prevent undue dishing of the domed portion 12 due to other reasons, for example pressure caused by stacking of containers one upon others. The inward projecting projections 17 also ensure that a gap for the passage of air will be retained between the upper surface of the carcass and the under surface of the domed portion 12, through which gap gases can flow through the flow channels created by the portions 13a and 14a into and out of the container 1 and around the carcass in the container.

As can be seen in Figure 3, the base wall 4 has a large middle plane portion 30 to which a soak-pad can be adhered. The soak-pad preferably has an opaque impermeable upper surface and an absorbent lower surface and overlaps onto the ribs

11, which ribs 11 assist in allowing liquid from the carcass to move unhindered to the underside of the soak-pad.

Overall the base tray is high at the tail to contain the legs and tail cavity of the fowl and is lower at the front to contain the wings, where applicable, and to cover a
5 neck cavity to improve presentation. The angular shape is designed to display the maximum amount of "attractive" product.

The 45° sloping wall 6_a at the tail helps support the carcass to prevent it from rocking, particularly in the case of turkey crowns where the back end is cutaway. The
10 ribs 11 provide extra strength and the underside of the plane middle portion of the base 4 is suitable to have labels applied thereto, for example to provide cooking instructions.

During gas flushing when the container 1, containing at least part of a fowl and itself contained within a plastics bag, is subjected to vacuum, the container 1 collapses somewhat reducing the amount of air in the container but the inward projections 17
15 prevent damage to the structural strength of the container by preventing total collapse of the lid 3 thereby allowing it to return to its normal position when the bag containing the container 1 is again recharged with gas. The inward projections 17 could be provided in the form of ribs or other configurations if preferred. The front end portion of the domed portion 12 has a generally flat portion which can receive
20 labels of an approved size without undue creasing of the labels.

CLAIMS

1. A container for packaging at least a main body portion of a carcass of a fowl comprising a base tray and a domed lid which can be hingedly connected together and
5 are provided with cooperating latching means to retain them in engagement when closed together, the base tray and the domed lid each being formed of drawn and/or blown plastics sheet material, wherein, at a plurality of locations distributed over the domed lid, the domed lid is depressed to form discrete inward projections which in use can, by abutting a carcass of a fowl contained in the container, restrict contact
10 between the domed lid and the carcass to said projections only, can prevent the domed lid being depressed inwardly to an extent such that it cannot itself recover its domed configuration and can ensure that passages for the flow of gas are maintained between the upper face of the carcass and the underside of the domed lid.
- 15 2. A container according to claim 1, wherein the discrete inward projections are in the form of dimples.
3. A container according to claim 1, wherein the discrete inward projections are in the form of ribs.
20
4. A container according to any one of claims 1 to 3, wherein the domed lid is formed of a transparent material.
- 25 5. A container according to any one of claims 1 to 4, wherein the base tray and the domed lid are formed from materials selected from polypropylene polystyrene PVC, PVC/PE, PVC/EVOH/PE and foamed P/P.
6. A container according to any one of claims 1 to 5, when used for packaging of turkey crowns in a process which incorporates gas flushing.
30
7. A container for packaging at least the main body portion of a carcass of a fowl

substantially as hereinbefore described and illustrated with reference to the accompanying drawings.



The
Patent
Office

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Application No: GB 9523459.7
Claims searched: 1 to 7

Examiner: Mike Henderson
Date of search: 24 January 1997

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): B8P (PV PE2B PK5)

Int Cl (Ed.6): B65D 1/22 1/26 1/28 1/34 1/36 1/40 1/42 1/44 25/10

Other: ONLINE:WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2255767A (CLARKE PACKAGING LTD) (See particularly P 3 Lines 8 to 11)	1 to 5

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|---|---|---|--|
| X | Document indicating lack of novelty or inventive step | A | Document indicating technological background and/or state of the art. |
| Y | Document indicating lack of inventive step if combined with one or more other documents of same category. | P | Document published on or after the declared priority date but before the filing date of this invention. |
| & | Member of the same patent family | E | Patent document published on or after, but with priority date earlier than, the filing date of this application. |

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